

PATENT ,

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:)	Examiner: Michael E. Keefer
Parks et al.)	
)	Art Unit: 2154
Serial No.: 10/774,934)	
)	
Filed: 02/09/2004)	
)	
For: Client-Side Auto-Rediscovery)	
For Networked Devices)	
)	
Date of Final Office Action:)	Attorney Docket No.:
January 24, 2008)	200209339-1
)	
Notice of Appeal Filed:)	
April 4, 2008)	

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Appeal Brief is timely provided to support the Notice of Appeal filed
April 4, 2008.

1. Real Party in Interest:

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

2. Related Appeals and Interferences

There are no other prior and/or pending appeals, interferences, or judicial proceedings that are related to, directly affect, or that will be directly affected by or have a bearing on the Board's decision.

3. Status of Claims

Claims 1-27 and 29-36 are pending in the application.

Claims 1-27 and 29-36 stand rejected.

Claim 28 was canceled.

The rejections of claims 1-27 and 29-36 are appealed.

4. Status of Amendments

No Amendments were filed subsequent to the Final Office Action.

5. Summary of Claimed Subject Matter

The citations below refer to page numbers and paragraph numbers within the present specification. When a paragraph number and line number are used (e.g. page 5, [0025], lines 1-2), the line numbers are counted from the top of the paragraph, not from the top of the page.

Independent Claim 1

Claim one recites a system. Page 5, [0025], line 1, figure 1, element 100. The system is associated with client-side auto-rediscovery. Page 1, [0005], line 1. The system includes a data store. Page 5, [0025], line 1, element 110. The data store is configured to store a pairing data. Page 5, [0025], lines 1-2. The pairing data relates to a service requesting networked device and a service providing networked device. Page 5, [0025], lines 2-3. The system also includes a logic. Page 5, [0026], line 1, element 120. The logic is configured to determine whether the pairing data should be updated. Page 5, [0026], lines 1-2. The logic is also configured to selectively update the pairing data. Page 5-6, [0026], lines 2-3.

Independent Claim 10

Claim 10 recites a system. Page 6, [0028], line 1, figure 2, element 200. The system is associated with client-side auto-rediscovery. Page 1, [0006], line 1. The system includes a data store. Page 6, [0028], line 1, element 210. The data store is configured to store an internet protocol (IP) address and a MAC address. Page 6, [0028], lines 1-2. The IP address and the MAC address are associated with a service providing networked device. Page 6, [0028], lines 2-3. The service providing networked devices is configured to provide a service to a requesting networked device. Page 6, [0028], lines 3-4. The data store is located in the requesting networked device. Page 6, [0028], lines 5-6. The system also includes a first logic. Page 6, [0029], line 1, element 220. The first logic is configured to

provide a uni-cast SNMP GET request for the MAC address of the service providing networked device. Page 6, [0029], line 1-2. The request is to determine whether the IP address and the MAC address stored in the data store describe a valid pairing. Page 6, [0029], lines 5-6. This determination is based on a uni-cast SNMP GET RESPONSE message. Page 6, [0029], lines 6-7. The first logic is located in the requesting networked device. Page 6, [0029], lines 7-8. The system also includes a second logic. Page 7, [0030], line 1, element 230. The second logic is configured to selectively produce a multicast SNMP GET request for the MAC address of one or more service providing networked devices. Page 7, [0030], lines 1-3. The second logic is also configured to selectively update the data store. Page 7, [0030], lines 4-5. A database update is based on a uni-cast SNMP GET RESPONSE message received in response to the multicast SNMP GET request. Page 7, [0030], lines 4-6. The second logic is also located in the requesting networked device. Page 7, [0030], lines 6-7.

Independent Claim 12

Claim 12 recites a system. Page 1, [0007], line 1, figure 3, element 300. The system is associated with client-side auto-rediscovery. Page 1, [0007], lines 1-2. The system includes means for storing a pairing data that relates a service requesting networked device and a service providing networked device. One structure that corresponds to the claimed element is data store 310. Page 7, [0031], lines 1-2. The system also includes means for doing weak discovery between the service requesting networked device and the service providing networked device. One structure that corresponds to the claimed element is logic 320. Page 7, [0032], lines 3-5. Logic is defined on page 4 and includes software, hardware and/or firmware. The system also includes means for selectively performing automatic strong discovery to rediscover the service providing networked device. One structure that corresponds to the claimed element is logic 320. Page 7, [0032], lines 7-9. The strong discovery is based on the weak

discovery. Page 7, [0030], lines 3-4. The means also selectively updates the pairing data based on the strong discovery. Page 7, [0030], lines 4-6.

Independent Claim 13

Claim 13 recites a method. Page 8, [0036], line 1, figure 4, element 400. The method is associated with client side auto-rediscovery. Page 2, [0008], line 1. The method includes determining whether to perform a process that facilitates relating a first networked device and a second networked device. Page 8, [0036], lines 1-3, element 410. The method also includes performing the process. Page 8, [0036], lines 11-12. The process includes selectively requesting a binding data from one or more networked devices. Page 9, [0037], lines 1-2. The binding data facilitates uniquely identifying a networked device. Page 9, [0037] line 2. The process also includes receiving a message that includes the binding data. Page 9, [0038], line 1, element 430. The binding data is received in response to requesting the binding data. Page 9, [0038], lines 2-3. The method also includes selectively updating a pairing data that relates the first networked device and the second networked device. Page 9, [0039], lines 1-2, element 440. Updating the pairing data is based on the binding data. Page 9, [0039], lines 2-3.

Independent Claim 26

Claim 26 recites a computer-readable medium. Page 9, [0041], line 1. The computer-readable medium provides processor executable instructions operable to perform a client-side auto-rediscovery method. Page 9, [0041], lines 1-2. The method includes determining whether to perform a process that facilitates relating a first networked device and a second networked device. Pages 9-10, [0041], lines 3-4. The method also includes selectively requesting binding data that facilitates uniquely identifying a networked device from one or more networked devices. Page 10, [0041], lines 4-5. The method also includes receiving a message that includes the binding data in response to requesting the binding data. Page 10,

[0041], lines 6-7. The method also includes selectively updating a pairing data that relates the first networked device and the second networked device based on the binding data. Page 10, [0041], lines 7-9. The method also includes storing the binding data in a computer memory. Page 10, [0041], lines 8-9.

Independent Claim 30

Claim 30 recites a method. Page 8, [0036], line 1 figure 4, element 400. The method relates to client-side auto-rediscovery. Page 2, [0008], line 1. The method includes determining whether to perform a process on behalf of a first networked device. Page 8, [0036], lines 2-3, element 410. The determination is made on a per service request basis. Page 8, [0036], lines 3-5. The determination is made by requesting a MAC address from a second networked device. Page 8, [0036], lines 5-7. A MAC address is one type of binding data. Page 9, [0037], lines 2-3. The MAC address facilitates binding the first networked device and the second networked device. Page 8, [0036], lines 5-7. The method also includes selectively requesting a MAC address from one or more networked devices. Page 9, [0037], lines 1-3. The MAC address facilitates re-binding the first networked device and the second networked device. Page 9, [0039], lines 1-3. The request is transmitted in an SNMP GET message via a multicast or a broadcast mode. Page 9, [0037], lines 5-7. The method also includes receiving the MAC address in a uni-cast SNMP GET RESPONSE message. Page 9, [0038], lines 1-4, element 430. The method also includes selectively updating an IP address, MAC address pair stored on the first networked device. Page 9, [0039], lines 1-6, element 440. The update is to bind the first networked device and the second networked device. Page 9, [0039], lines 1-2.

Independent Claim 31

Claim 31 recites a method. Page 10, [0042], line 1, figure 5, element 500. The method is associated with client-side auto-rediscovery. Page 2, [0009], line 1.

The method includes discovering a first connection to a service providing networked device. Page 10, [0042], lines 2-3, element 510. The method also includes client-side associating a stored connection between a service requesting networked device and the service providing networked device. Page 10, [0043], lines 1-3, element 520. The client-side association is based on the first connection. Page 10, [0043], lines 3-4. The method also includes validating the stored connection. Page 10, [0044], lines 2-3, element 530. The validation is performed upon the service requesting networked device making a request for a service from the service providing networked device. Page 10, [0044], lines 1-2. The method also includes selectively re-discovering a second connection to the service providing networked device. Page 11, [0045], lines 6-7, element 560. The method also includes selectively client-side re-associating the stored connection. Page 11, [0045], lines 7-8, element 570. The client-side re-associating is based on the second connection. Page 11, [0045], lines 9-10.

6. Grounds of Rejection to be Reviewed on Appeal

I. Whether claim 26 is unpatentable under 35 USC 101 because the claimed invention is directed to non-statutory subject matter.

II. Whether claims 1-7 are unpatentable under 35 U.S.C. 102(b) as being anticipated by Roy et al. (US publication 2002/0062366)(hereinafter "Roy").

III. Whether claim 12 is unpatentable under 35 U.S.C. 102(b) as being anticipated by Roy.

IV. Whether claims 13, 15-29, and 31-36 are unpatentable under 35 U.S.C. 102(b) as being anticipated by Roy.

V. Whether claim 14 is unpatentable under 35 U.S.C. 103(a) as being obvious over Roy as applied to claim 13 above, and further in view of Wu (US Patent 5,185,860)(hereinafter "Wu").

VI. Whether claims 10 and 30 are unpatentable under 35 U.S.C. 103(a) as being obvious over Wu in view of Roy.

VII. Whether claim 11 is unpatentable under 35 U.S.C. 103(a) as being obvious over Wu and Roy as applied to claim 10 above, and further in view of Moetteli (US publication 2002/0049809)(hereinafter "Moetteli").

VIII. Whether claims 8 and 9 are unpatentable under 35 U.S.C. 103(a) as being obvious over Wu and Roy as applied to claims 1-7 above, and further in view of Janz et al. (US publication 20020103888).

7. Argument

I. Whether claim 26 is unpatentable under 35 USC 101 because the claimed invention is directed to non-statutory subject matter.

On page 2, the Final Office Action recites that “the “computer-readable medium,” in accordance with the Applicant’s specification, may be carrier waves. However in the Amendment filed on November 7th 2008, all references to carrier waves and more broadly, transmission media were removed from the definition of the term computer-readable medium. The Final Office Action further recites that this “amendment is new matter by deletion” and suggests that the Applicant cancel the amendment and change occurrences of the phrase “computer-readable medium” to “volatile and/or non-volatile media”. Appellant invites a citation to the “new matter by deletion” section of the MPEP. Appellant asserts that the amendment addresses the issue relating to carrier waves without introducing new material. While it is possible that in some circumstances removing a term or phrase may broaden the scope of a claim, in this instance, matter is only removed from the specification. Therefore claim 26 is under condition for allowance and the rejection should be reversed. Further, as claims 27 and 29 depend from claim 26, the Appellant respectfully requests the rejections be withdrawn.

II. Whether claims 1-7 are unpatentable under 35 U.S.C. 102(b) as being anticipated by Roy.

For a 35 U.S.C. §102 reference to anticipate a claim, the reference must teach every element of the claim. Section 2131 of the MPEP recites:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of*

California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Here, Roy does not teach at least one element of each of the independent claims. Therefore Roy does not establish a prima facie case of anticipation for any of the independent claims or the claims that depend from them. Roy fails to teach, among other things, a logic to determine whether pairing data should be updated, a logic to selectively update pairing data, and performing rediscovery in a strong discovery then weak discovery order. These deficiencies will be examined in greater detail below.

Independent Claim 1

This claim includes a "logic to determine whether pairing data should be updated". A logic is hardware, software, firmware, and/or combinations thereof (Page 4, [0019]). Roy describes user-initiated discovery. "A user on the network with a Hypertext Transfer Protocol (HTTP) client 15, or web browser, wishes to find either all devices that reside on the network 45, or those of a specified class..." (Page 2, [0022]) The claim describes a "client-side auto-rediscovery system". Roy describes a "system network device location that provides a faster and more exhaustive search which supplements the basic UDP broadcast and responses" (Page 1, [0007]). The reference produces a system for quickly and efficiently cataloging all devices of a certain type on a network, but only at the behest of a user. The claim performs re-discovery automatically while Roy performs discovery after a manual action. For at least this reason Roy does not anticipate this claim, leaving the claim in condition for allowance. Accordingly, claims 2-9, which depend from claim 1, are also not anticipated and in condition for allowance.

The Final Office Action recites that "nowhere in the body of any of the independent claims does the word "automatic" occur." However, as described above, claim 1 recites "a logic to determine whether pairing data should be updated." On page 5, [0024], the Application defines the term determining.

"[D]etermining... refer[s] to actions and processes of a computer system, logic, processor, or similar electronic device." Thus, the Application describes a system where the logic (e.g. hardware, software, firmware) determines to initiate the rediscovery action. The Final Office Action agrees that, in Roy on page 13, paragraph 12, a user makes the determination to initiate the process described by Roy. "Applicant's contention that Roy is a user-triggered system is true." A user initiated process is not the same as a logic initiated process. The Final Office Action further recites on page 13, paragraph 14, "[a]pplicant contends that Roy does not contain logic to determine whether pairing data should be updated. The Examiner disagrees, because Roy has logic to determine when a user desires an update." Even if this is true, Roy describes a logic that must be initiated by a user. As the Appellant describes a system that may be initiated by factors unrelated to user input (e.g. time, power status), the Application provides new utility not described by Roy. Therefore, for at least these reason, claim 1 is not anticipated by Roy and is in condition for allowance. As claims 2-9 depend from claim 1, they are also not anticipated and are in condition for allowance.

Appellant recognizes that limitations in a preamble may or may not be given effect. The Appellant recognizes that generally, the preamble does not limit the claims. (See *DeGeorge v. Bernier*, 768 F.2d 1318, 226 USPQ 758 (Fed. Cir. 1985)). However, one case has held that if the limitations in the preamble "give life and meaning" to a claim, they will be given weight. (*Kropa v. Robie*, 187 F.2d 160, 152, 88 USPQ 478 (C.C.P.A 1951)). Therefore, in one interpretation, the limitation in the preamble, "client-side auto-rediscovery," does limit the claim. Therefore, the rejection is improper and the claim is in condition for allowance.

Accordingly, in effort to advance prosecution, if examination is reopened, Appellant will amend claims, at the recommendation of the Examiner, to include the client-side limitation outside of the preamble.

III. Whether claim 12 is unpatentable under 35 U.S.C. 102(b) as being anticipated by Roy.

Independent Claim 12

Appellant previously argued that claim 12 describes "means for selectively performing automatic strong discovery to rediscover the service providing network device based on the weak discovery and selectively updating the pairing data based on the strong discovery." By contrast, Roy uses manually initiated weak discovery to discover all service providing devices on the network and then uses strong discovery to fill in missing information. Roy does nothing concerning updating pairing data. This claim describes using weak discovery to re-discover previously known service providing devices and then using strong discovery to update the pairing data with current information. Roy describes only manually initiated weak discovery.

On page 14, the Final Office Action responds that "the terms "weak discovery" and "strong discovery" are not special terms to one of ordinary skill in the art and have been given their broadest reasonable interpretation by the Examiner." While weak discovery and strong discovery may not be terms of art, they are described in the application. A patentee may act as their own lexicographer, defining the meaning of words used in the claims. (*Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir., 1995) (en banc), *aff'd*, 517 U.S. 370 (1996)). On page 7, paragraph [0032], the Application recites "[w]eak discovery may include, for example, sending broadcast and/or multicast messages out onto a network to discover the service providing networked device." Paragraph [0032] further recites, "[s]trong discovery may include, for example, sending uni-cast messages with requests for specific binding data to a specific device." For example, claim 10 recites "a second logic configured to selectively produce a multicast SNMP GET request." This is a form of weak discovery. Claim 10 also recites, "a first logic configured to produce a uni-cast SNMP GET request. This is a

form of strong discovery. Therefore, support for strong discovery and weak discovery is also in the claims.

The Final Office action continues "[t]herefore, applicant's arguments that Roy does not anticipate Applicant's disclosure are irrelevant since these limitations are not present in the claim." This is an improper rejection. Even if the broadest reasonable interpretations of the terms "strong discovery" and "weak discovery" are applicable, which they aren't, the Final Office Action fails to respond to or even acknowledge the rest of the argument previously presented. As described above, Roy does not perform any function relating to updating pairing data, and furthermore Roy describes a user initiated process. Therefore, for at least these reasons, claim 12 is in condition for allowance and the rejection should be withdrawn.

IV. Whether claims 13, 15-29, and 31-36 are unpatentable under 35 U.S.C. 102(b) as being anticipated by Roy.

This set of claims includes independent claims 13, 26, and 31. Claims 15-25 depend from claim 13, claims 27-29 depend from claim 26, and claims 32-36 depend from claim 31. Therefore, all the dependent claims can be shown to be not anticipated by addressing the independent claims.

Independent Claim 13

Appellant previously argued that this claim describes a "client-side auto-rediscovery method". The method includes first determining whether to perform a rediscovery process and then performing the process by requesting binding data, receiving binding data, and selectively updating a pairing data based on the received binding data. In contrast, Roy appears to send out broadcast messages to acquire pairing data from as many networked devices as it can find in response to a user-initiated request to do initial discovery. The contrast between the claim

and the reference is that the claim performs automatically initiated strong rediscovery while the reference performs human-initiated weak discovery. For at least these reasons the claim is not anticipated by the reference, leaving the claim in condition for allowance. Accordingly, claims 15-25 are also not anticipated and are in condition for allowance.

The Final Office Action does not respond to the above arguments except in the blanket response to Appellant's argument regarding automatic discovery. As described above in the discussion of independent claim 1, on page 5, [0024], the Application defines the term determining. "[D]etermining... refer[s] to actions and processes of a computer system, logic, processor, or similar electronic device." As a logic (e.g. hardware, software, firmware) is described in the specification as performing the method described in claim 13, a user is not. As Roy only discloses a user determining whether to perform a process, this claim is not anticipated by the reference. Accordingly, claims 15-25 are also not anticipated and are in condition for allowance.

Independent Claim 26

Appellant previously argued that this claim describes a computer-readable medium that stores processor executable instructions that are operable to perform a client-side auto-rediscovery method. Roy describes a method for doing manual initial discovery and then manual rediscovery. The method includes first determining whether to perform a process that relates a first device to a second device. This determination may be based on strong rediscovery. Roy merely describes weak initial discovery followed by additional weak discovery where some devices are encouraged not to respond to reduce overall network traffic. For at least this reason this claim is not anticipated and is in condition for allowance.

Once again, the Final Office Action does not respond to the above arguments except in the blanket response to Appellant's argument regarding automatic discovery. As described above in the discussion of independent claim 1, on page 5, [0024], the Application defines the term determining. "[D]etermining...

refer[s] to actions and processes of a computer system, logic, processor, or similar, electronic device.” As a logic (e.g. hardware, software, firmware) is described in the specification as performing the method described in claim 26, a user is not. As Roy only discloses a user determining whether to perform a process, this claim is not anticipated by the reference. Accordingly, claims 27 and 29 are also not anticipated and are in condition for allowance.

Independent Claim 31

Appellant previously argued that this claim describes a client-side auto-rediscovery method. Roy describes a manually-initiated discovery method. The Office action asserts that Roy would “re-discover” devices when the HTTP client makes subsequent requests to a management device. (Office Action, page 8, paragraph 31). However, even if such “rediscovery” occurs, it will only do so after a manual request to do so. The method described in Roy will forward information back to an HTTP client based on what devices it discovers. Note that this is discovery performed in response to a manual request, not automatic rediscovery initiated when a service requesting device makes a request from a service providing device. Roy employs a “management device” to send out customized broadcast messages to do its discovery. This claim describes no such management device. Instead, this claim describes directly re-discovering and reconnecting to previously known devices on its own, without a user-initiated request to do so.

This claim recites “selectively re-discovering a second connection to the service providing networked device”. The selective re-discovering occurs based on the result of a validation of the stored connection that occurs “upon the service requesting networked device making a request for a service from the service providing networked device.” These elements clarify a distinction between the claim and the reference. The claim describes a rediscovery method that is performed when a first device wants a second device to perform a service. It is done on a per-request basis. The reference is trying to set up a table before any

requests are made. The table is useful, but it can get out of date. Thus, this claim describes checking to see whether the stored data is correct when requests for service are made. If the data is not correct, then it can be corrected. No such correcting is described in the reference. Furthermore, as described above, the reference does not make any updates to the table unless a request is manually initiated by a user. The claim describes automatically determining to make requests for information updates while the reference requires user input.

In response, the Final Office Action recites "the limitations that the Applicant argues are not disclosed by Roy are not in the claim "discovering and reconnecting to previously known devices on its own, without a user-initiated request to do so." This is incorrect. Claim 31 recites "re-discovering a second connection to the service providing networked device." Claim 31 describes discovering a previously known device. Claim 31 further recites "client-side re-associating the stored connection." Claim 31 also describes reconnecting to the previously known device. For at least these reasons this claim is not anticipated by the reference and is in condition for allowance. Further, as claims 32-36 depend from claim 31, their rejections are also improper and should be withdrawn.

V. Whether claims 10 and 30 are unpatentable under 35 U.S.C. 103(a) as being obvious over Wu in view of Roy.

To establish a prima facie case of 35 U.S.C. §103 obviousness, basic criteria must be met. The prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP 2143.(A) Section 2131 of the MPEP recites how "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). This same standard applies to 103 rejections as evidenced by Section 2143(A) of the MPEP, which reads: "The

rationale to support a conclusion that the claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions”.

Additionally, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In *re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). This requirement is intended to prevent unacceptable “hindsight reconstruction” where Applicant's invention is recreated from references using the Application as a blueprint.

Here, the criteria for establishing a *prima facie* case of obviousness are not satisfied since the combination of references does not teach or suggest all the claim limitations. None of the references, alone and/or in combination, teach automatic client-side rediscovery. Additionally, none of the references, alone and/or in combination teach automatic client-side rediscovery that uses a strong discovery, weak discovery sequence where the weak discovery is only selectively performed based on the result of the strong discovery. Thus, none of the claims are obvious for at least this reason. Individual claims will be distinguished below.

Independent Claim 10

Appellant previously argued that this claim recites a client-side auto-rediscovery system. Neither Roy nor Wu describe client-side rediscovery. Both references appear to describe network-wide table updating. Roy attempts to find unknown devices by contacting a known device in a network and having that known device locate unknown devices by means of a broadcast request. Wu also employs “discovery agents” that perform network-wide weak discovery. While useful, neither of these references, alone and/or in combination, describes a strong discovery, weak discovery sequence with the weak discovery being selectively performed based on the result of strong discovery as claimed and described. For

at least these reasons this claim is not obvious over the combination of references and is in condition for allowance.

Once again, the Final Office Action does not respond to the above arguments except in the blanket response to Appellant's argument regarding automatic discovery. As described above in the discussion of independent claim 1, on page 5, [0024], the Application defines the term determining. "[D]etermining... refer[s] to actions and processes of a computer system, logic, processor, or similar electronic device." As a logic (e.g. hardware, software, firmware) is described in claim 10 as performing the determining action, a user is not. As Roy only discloses a user determining whether to perform a process, this claim is not anticipated by the reference. Accordingly, claim 11 is also not anticipated and is in condition for allowance.

Additionally, claim 10 recites "the [data store/first logic/second logic] being located in the requesting networked device." Here it is shown that the client described in the preamble is the requesting networked device as all elements of the system reside in the requesting networked device. Neither Roy nor Wu describe systems where all elements of the system reside in the requesting device. This is in part because much of the process described by Roy is performed by an external device (e.g. a printer) that receives a signal in response to the user driven request and in response, sends out broadcast messages to populate the table of devices.

Independent Claim 30

This claim describes a client-side auto-rediscovery method. Neither of the references performs "client-side" work. Instead, both references appear to maintain binding tables for an entire network. Claim 30 recites that a determination concerning whether to perform a rediscovery process is performed on a per service request basis. Wu describes periodically using discovery agents to update network tables and Roy describes user-initiated initial discovery of a set of devices all belonging to a similar class. Thus, neither Roy nor Wu, alone and/or in

combination, teach client-side rediscovery on a per service request basis. For at least this reason this claim is not obvious over the combination of references and is in condition for allowance.

In response, the Final Office Action recites "[r]egarding independent claim 30, which Applicant argues that the references do not perform "client-side" work. This limitation is contained only in the preamble of the claim, and thus is not limiting upon the interpretation of the body of the claim." Page 15, paragraph 30. However, claim 30 recites "selectively updating an IP address, MAC address pair stored on the first networked device." Here the entire method is being performed for the first networked device (i.e. the client). As described above, much of the methods described by Roy are not performed by the agent that requested them. Roy describes a method where an external device sends out the broadcast messages looking for devices in response to a user driven input. The claimed element describes a series of functions performed by the first networked device without user driven input. Thus, for at least the above reason the rejection is improper and claim 30 is in condition for allowance.

Appellant recognizes that limitations in a preamble may or may not be given effect. The Appellant recognizes that generally, the preamble does not limit the claims. (See *DeGeorge v. Bernler*, 768 F.2d 1318, 226 USPQ 758 (Fed. Cir. 1985)). However, one case has held that if the limitations in the preamble "give life and meaning" to a claim, they will be given weight. (*Kropa v. Robie*, 187 F.2d 160, 152, 88 USPQ 478 (C.C.P.A 1951)). Therefore, in one interpretation, the limitation in the preamble, "client-side auto-rediscovery," does limit the claim. Therefore, the rejection is improper and the claim is in condition for allowance.

Accordingly, in effort to advance prosecution, if examination is reopened, Appellant will amend claims, at the recommendation of the Examiner, to include the client-side limitation outside of the preamble.

Conclusion

For the reasons set forth above, a prima facie anticipation or obviousness rejection has not been established for any claim. All rejections have been shown to be improper. Appellant respectfully believes that all pending claims **1-27 and 29-36** patentably and unobviously distinguish over the references of record and that the rejections should be withdrawn. Appellant respectfully requests that the Board of Appeals overturn the Examiner's rejections and allow all pending claims. An early allowance of all claims is earnestly solicited.

Respectfully submitted,

JUN 3, 2008
Date

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8. Claims Appendix

1. A client-side auto-rediscovery system, comprising:

a data store configured to store a pairing data that relates a service

requesting networked device and a service providing networked

device; and

a logic configured to determine whether the pairing data should be updated

and to selectively update the pairing data.
2. The system of claim 1, where the data store comprises one or more of, a
file, a memory, and a register.
3. The system of claim 2, where the pairing data comprises one or more of, an
IP address, a unique hardware identifier, a unique software identifier, a virtual
identifier, and a dynamic identifier.
4. The system of claim 3, where the unique hardware identifier comprises one
or more of, a media access control (MAC) address, a globally unique identifier
(GUID), an object identifier (OID), and an IP address.
5. The system of claim 4, where the service requesting networked device
comprises one of, a computer, a printer, a scanner, and a server.

6. The system of claim 5, where the service providing networked device comprises one of, a computer, a printer, a scanner, and a server.

7. The system of claim 6, where the logic is further configured to generate a uni-cast simple network management protocol (SNMP) GET message to be delivered from the service requesting networked device to the service providing networked device to request a binding data that facilitates determining whether to update the pairing data.

8. The system of claim 7, where the logic is further configured to selectively generate a multicast SNMP GET message to be delivered to a plurality of service providing networked devices to request a binding data that facilitates updating the pairing data upon determining that a desired response was not received in response to the unicast SNMP GET message.

9. The system of claim 8, where the binding data comprises one or more of, a MAC address, a GUID, an OID, an IP address, and a virtual name.

10. A client-side auto-rediscovery system, comprising:
a data store configured to store an Internet protocol (IP) address and a MAC address associated with a service providing networked device that is

configured to provide a service to a requesting networked device, the data store being located in the requesting networked device;

a first logic configured to produce a uni-cast SNMP GET request for the MAC address of the service providing networked device and to determine whether the IP address and MAC address stored in the data store describe a valid pairing based on a uni-cast SNMP GET RESPONSE message, the first logic being located in the requesting networked device; and

a second logic configured to selectively produce a multicast SNMP GET request for the MAC address of one or more service providing networked devices and to selectively update the data store based on one or more uni-cast SNMP GET RESPONSE messages responsive to the multicast SNMP GET request, the second logic being located in the requesting networked device.

11. The system of claim 10, where the data store comprises an extensible markup language (XML) file.

12. A client-side auto-rediscovery system, comprising:

means for storing a pairing data that relates a service requesting networked device and a service providing networked device;

means for doing weak discovery between the service requesting networked .
device and the service providing networked device; and
means for selectively performing automatic strong discovery to rediscover
the service providing networked device based on the weak discovery
and selectively updating the pairing data based on the strong
discovery.

13. A client-side auto-rediscovery method, comprising:
determining whether to perform a process that facilitates relating a first
networked device and a second networked device; and
performing the process by:
selectively requesting from one or more networked devices a binding
data that facilitates uniquely identifying a networked device;
receiving, in response to requesting the binding data, a message that
includes the binding data; and
selectively updating a pairing data that relates the first networked
device and the second networked device based, at least in
part, on the binding data.

14. The method of claim 13, where determining whether to perform the process
is performed periodically.

15. The method of claim 13, where determining whether to perform the process is performed when the first networked device requests a service from the second networked device.

16. The method of claim 13, where determining whether to perform the process includes requesting the binding data from the second networked device via a uni-cast message.

17. The method of claim 16, where the uni-cast message comprises an SNMP GET request.

18. The method of claim 17, where the binding data comprises one or more of, a MAC address, an OID, a GUID, an IP address, and a virtual name.

19. The method of claim 13, where the binding data is requested in one or more of, a broadcast message, a multicast message, and a uni-cast message.

20. The method of claim 19, where one or more of, the broadcast message, the multicast message, and the uni-cast message comprise one or more of, an SNMP GET request, and an SLP request.

21. The method of claim 20, where the binding data comprises one or more of a MAC address, an OID, a GUID, an IP address, and a virtual name.

22. The method of claim 21, where the binding data is received in a second uni-cast message.

23. The method of claim 22, where the second uni-cast message comprises one or more of, an SNMP GET RESPONSE message, and an SLP message.

24. The method of claim 13, where the pairing data includes one or more of, an IP address, a MAC address, an OID, a GUID, and a virtual name.

25. The method of claim 13, where the process is performed by a device driver.

26. A computer-readable medium providing processor executable instructions operable to perform a client-side auto-rediscovery method, the method comprising:

- determining whether to perform a process that facilitates relating a first networked device and a second networked device;
- selectively requesting from one or more networked devices a binding data that facilitates uniquely identifying a networked device;
- receiving, in response to requesting the binding data, a message that includes the binding data;

selectively updating a pairing data that relates the first networked device and ,
the second networked device based, at least in part, on the binding
data; and
storing the pairing data in a computer memory.

27. The computer-readable medium of claim 26, where the computer-readable
medium comprises a compact disk.

28. (Cancelled)

29. The computer-readable medium of claim 26, where the computer-readable
medium comprises a memory.

30. A client-side auto-rediscovery method, comprising:
determining, on a per service request basis, whether to perform a process
on behalf of a first networked device by requesting a MAC address
from a second networked device, where the MAC address facilitates
binding the first networked device and the second networked device;
selectively requesting a MAC address from one or more networked devices,
where the MAC address facilitates re-binding the first networked
device and the second networked device, where the request is

transmitted in an SNMP GET message via one or more of a multicast
and broadcast mode;
receiving the MAC address in a uni-cast SNMP GET RESPONSE message;
and
selectively updating an IP address, MAC address pair stored on the first
networked device to bind the first networked device and the second
networked device.

31. A client-side auto-rediscovery method, comprising:
discovering a first connection to a service providing networked device;
client-side associating a stored connection between a service requesting
networked device and the service providing networked device based,
at least in part, on the first connection;
upon the service requesting networked device making a request for a
service from the service providing networked device, validating the
stored connection;
selectively re-discovering a second connection to the service providing
networked device; and
selectively client-side re-associating the stored connection based, at least in
part, on the second connection.

32. The method of claim 31, where discovering the first connection comprises sending one or more of, a broadcast message and a multicast message by one or more of, an SNMP message and an SLP message to one or more service providing networked devices.

33. The method of claim 32, where client-side associating the stored connection comprises storing one or more of, a unique hardware identifier, a unique software identifier, a virtual identifier, a dynamic identifier, and a uni-cast IP address associated with the service providing networked device.

34. The method of claim 33, where validating the stored connection to the service providing networked device comprises sending a uni-cast SNMP GET message to the service providing networked device.

35. The method of claim 34, where selectively re-discovering the second connection comprises sending one or more of, a broadcast message and a multicast message by one or more of, an SNMP message and an SLP message to one or more service providing networked devices.

36. The method of claim 35, where client-side re-associating the stored connection comprises updating a pairing table.

9. Evidence Appendix

None. There is no extrinsic evidence.

10. Related Proceedings Appendix

None. There are no related proceedings.